## MARK DALE

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## Objective

To learn, implement and support application development using the latest information management technologies as they provide competitive advantages in the marketplace.

## **Recently Added Education/Skills**

## Certified Training (UCF Coding Boot Camp (10/06/2021 – 03/30/2022))

- JavaScript
- HTML
- CSS
- jQuery
- Bootstrap
- Node.js
- MySQL
- MongoDB
- Express.js
- React.js

See the Boot Camp training portfolio at <a href="https://msdale.github.io/portfolio-msdale/">https://msdale.github.io/portfolio-msdale/</a>

# **Skills Summary (From 1999 - 2021)**

- Cloud technologies (2017 2021): client side development using Spark, Kafka, HDFS, and Hive... *User exposure* to Terraform provisioning, Anisble scripting, and AWS using Glue, S3, and Batch.
- Programming languages:
  - o (2017 2021) Python, Scala
  - (2014 2021) Java
  - (1999 2012) C/C++.
- Frameworks and APIs:
  - (2017 2021) Spark (kafka streaming)
  - (2014 2017) Spring Boot
  - (2007 2012) gSOAP, GNOME XSLT C
- Scripting languages:
  - o (2017 2021) Python

• (1999 – 2017) Perl, Shell scripting (bash, korn, and Z with a little awk and sed as well).

#### • Configuration formats:

- o (2021) YAML
- (2014 2021) JSON
- o (2005 2012) XML

#### • Editing:

o (1999 – 2021) VI, VIM GVIM (and VIM-based plugins in IDEs).

### • Operating systems:

o (1999 – 2021) Mac/Unix/Linux and Windows.

#### • IDEs:

- o (2021 2022) VSCode (IDE for recent Full-Stack Training)
- (2012 2021) Eclipse, IntelliJ

### • Build tools:

- o (2012 2020) maven and gradle
- $\circ$  (1999 2012) make and gmake.

### • Version control tools:

- o (2015 2022) Git
- (2007 2014) Clearcase (IBM)
- (2003 2006) CM\_Synergy
- o (1999 2002) RCS

### RDBMS/SQL:

- (1999 2022) Snowflake/SnowSQL, Hive, SQL\_Server, MySQL, MariaDB, Teradata,
   Oracle and Informix
- o (2012 2014) Teradata utilities: Bteg, FastLoad, FastExport and Data Mover
- o (2001 2012) Oracle utilities: PL/Sql, sqlplus, sqlldr, Pro\*C and OCCI compilers.
- (1999 2001) Informix utilities: ESQL/C compiler.

# Experience

# Walt Disney Parks & Resorts

Lead Information Management Engineer – 06/2015 to 09/2021

- Enhanced and debugged a Python3 application/framework (08/2021).
- <u>Built and used scripting tool using Python3</u> to automate moving "on-prem" Oracle sources to AWS/S3 extract files using git-based CICD, AWS console for monitoring Glue jobs, Batch jobs, and S3 object creation (02/2021-07/2022).
- <u>Built and used data equality tester tool using Python3</u> for comparing data values between source (Teradata/on-prem) and target (Snowflake/cloud) (05/2020-01/2021).
- Self trained in Ansible (04/2020).

- <u>Built, enhanced and maintained a real-time data ingestion pipeline</u> moving JSON message data Kafka, to HDFS using Scala, Spark, with the Kafka streaming API. Also developed a high performance Java command-line app for consolidating small files created by the Spark streaming micro-batches (02/2017-12/2019).
- **Supported a vendor-based hierarchical database system** adding my own REST service component (Java/Spring boot) to feed daily batch ETL workflows (09/2017-02/2020).
- <u>Provided application development and support</u> for two internally developed ETL frameworks (one Java and one Python2) (01/2015-02/2020). Some notable accomplishments:
  - ✓ Stabilized Java ETL framework and reduced framework related production incidents from 60+ to 0 average incidents per week (01-02/2015).
  - ✓ Developed a REST service (Java) application for launching jobs on demand, and refactored 2 non-functioning REST client applications for retrieving JSON data and converting to XML files suitable for feeding a legacy batch file ETL process.

#### Pertinent skills utilized ...

**Programming:** Scala, Spark framework, Kafka/Spark streaming library-API, Java, HDFS java client, Teradata Java client, Java Spring Boot Framework, ksh, bash, perl, python.

**IDE:** Eclipse (SpringToolSuite and SCALA IDE), Intellij.

DB Tools: Teradata bteq, Teradata Studio Express.

Build technology: gradle, maven.

Version control: git.

# Walt Disney Parks & Resorts

Information Architect – 06/2014 to 06/2015

Researched solutions and provided direction for a large-scale IT project to better personalize the guest experience from online shopping to reservation booking to hotel registration to theme park experiences. Primary responsibilities included maintaining communications between disparate development groups for large scale project technical design and implementation.

# Walt Disney Parks & Resorts

Senior DBA - 06/2012 to 06/2014

**Served on a team of 4 DBAs to maintain a Teradata data-warehouse ecosystem.** Passed the 1<sup>st</sup> level Teradata 12 Professional Certification Exam.

Some specific responsibilities included:

- DDL execution.
- Managing user roles and access.
- Admin process automation
  - ✓ Teradata Data Mover job automation using XSLT and shell scripting.

✓ Automated the process for rolling the date partitioned data window for date partitioned tables.

#### Pertinent skills utilized...

**Programming and automation:** Teradata, ksh, Perl, SQL, xsltproc.

**DB Tools:** Teradata bteq, FastLoad, FastExport, Data Mover, Teradata Studio Express, Teradata SQL Assistant.

## Walt Disney Parks & Resorts

Senior Application Developer – 05/2007 to 06/2012

Served as lead developer on the GOMaster project (a tier 1 OLTP application still in production...as of 04/2022). Designed and implemented a linearly scalable application infrastructure for operational (real-time) guest data integration and guest recognition. This system integrated batch and real-time data feeds using parallel-processing, message queuing and web services. Primary responsibilities included:

### • Overall design of the system and its components, including:

- ✓ An input interface that accommodated both batch file processing, Web Service (SOAP) messaging, and Enterprise Application message queues (IBM MQ Series).
- ✓ A rules engine for data transformations.
- ✓ A rules engine for executing CRUD logic.
- ✓ A framework to simplify and standardize application components for logging, IPC device interactions (Posix queues), and application properties ingestion.
- ✓ A C/C++ based architecture with gSOAP Web Service code generation tool (opensource) to eliminate the need for IBM Websphere licensing (major cost savings), as well as significantly reducing the resource footprint.

### • Coded the following:

- ✓ A Transformation rules engine.
- ✓ A CRUD rules engine.
- ✓ The primary data integration application (using both rules engines).
- ✓ Collaborated with a team member to contain the primary integration app with a homespun framework for interacting with the IBM MQ Series platform and IBM Websphere SOAP Services..
- Aided in setting up server architecture and software installations for supporting IBM MQ Series, Oracle client, Posix queues, gSOAP and other supporting shared libraries.
- **Designed and coded the project build automation** using gmake.
- Designed, documented and automated a deployment system for new releases.
- Integrated company standard version control tools (CM\_Synergy initially, and later Clearcase, then GitHub).
- Authored a REPL shell for testing and implementing transformation rule configurations.
- Full time on-call support for hyper care, and thereafter on a rotating basis.
- Provided maintenance and on-call support for 5 years.

## Pertinent Skills utilized...

**Programming:** C/C++, ksh, Perl, SQL, PL/SQL.

APIs: Oracle Pro\*C, Oracle OCCI, PostalSoft/FirstLogic, IBM MQ Series, gSOAP, gNome XSLT C,

Apache Xerces.

**DB Tools:** sqlplus, sqlldr, SqlDeveloper. **Build technology:** Unix make, Linux gmake.

**Version control:** CM\_Synergy initially, later on Clearcase.

## Walt Disney Parks & Resorts

Senior Application Developer – 01/2001 to 05/2007

Served as lead developer creating an Operational Data Store (ODS) for guest data (the precursor/foundational project leading to the GOMaster project, documented previously). Designed and implemented a Mastered guest data application for real-time guest recognition. Primary responsibilities included:

- Overall system design:
  - ✓ A Transformation rules engine.
  - ✓ CRUD implemented in Oracle stored procedures.
  - ✓ A functional C library for IPC device interactions (semaphores and pipes), logging, DB transactions, application properties ingestion, and a data exchange interface using Enterprise queuing system (IBM MQ Series).
- Designed, documented and automated a deployment system for new releases.
- Integrated company standard version control tools.
- Provided maintenance and on-call support for 6 years.

NOTE: the ODS project became Tier 1 in 2005 becoming the system of record for guest recognition data.

Pertinent Skills utilized...

Programming: C, ksh, Perl, SQL, PL/SQL.

APIs: Oracle Pro\*C, PostalSoft, IBM MQ Series.

**DB tools:** sqlplus, sqlddr, sqldeveloper.

**Build technology:** Unix make. **Version control:** CM\_Synergy.

# Walt Disney Parks & Resorts

## Senior Application Developer - 12/1998 to 12/2000

Served as lead developer on the MDB (Marketing Database) project (this was the precursor to the ODS project documented above; that is the ODS project sourced much of its initial data from the MDB). Took over full technical support for the project (previously supported by technical contracting firm; Epsilon, out of Boston). Primary responsibilities included:

- Weekend on-call.
- Bug fixes and coding enhancements.
- Some notable accomplishments:

- ✓ Refactored guest matching process, reducing guest duplication from 1000+ per week to less than 1 per week.
- ✓ Refactored batch process for integrating and mastering guest data, correcting numerous "house-holding" errors and increasing the marketable guest instances by over 300k.
- ✓ Designed a process for matching and merging individual guest data as a transaction in sub-second time against a database of 80 million guests, paving the way to get approved funding for the ODS project (documented previous to this).

Pertinent Skills utilized...

Programming: C, ksh, Perl, SQL.

**APIs:** Informix ESQL/C and PostalSoft.

**Build technology:** Unix make.

Version control: RCS.

## Education

## BS Forestry/University of Massachusetts (Amherst)

Graduated 05/1981

GPA 3.81

Transcripts available on request

# Hudson Valley Community College (Troy, NY)

Attended part-time 06/1984 to 12/1985

Calculus 1 & 2 (Both Grade: A)

Physics 1 & 2 (Both Grade: A)

Transcripts available on request